

Characteristics and Risk Management Needs of Limited-Resource and Socially Disadvantaged Farmers. By Robert Dismukes, Joy L. Harwood, and Susan E. Bentley. Commercial Agriculture Division, Economic Research Service, and Risk Management Agency, U.S. Department of Agriculture. Agriculture Information Bulletin No. 733.

Abstract

Small U.S. farms and those run by socially disadvantaged minority operators tend not to purchase crop insurance or to participate in insurance-type programs operated by the U.S. Department of Agriculture. This report traces the lack of use of such risk management measures to several characteristics of such farmers. They tend, more than the typical U.S. farm, to raise livestock rather than crops, and there are no government-sponsored insurance-type programs for livestock. Many of those who raise crops tend to concentrate on specialty crops such as fruits and vegetables rather than field crops that are the focus of most government programs. In many cases, farm income contributes less to the household's overall income, so a lack of insurance for the farm enterprise is less important than for a household more reliant on farm income.

Keywords: Risk management, crop insurance, limited-resource farmers, limited-opportunity farmers, small farms, socially disadvantaged farmers

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Preface

To better understand the characteristics and risk management needs of limited-resource and socially disadvantaged farmers and to help provide information for future efforts, the Risk Management Agency, U.S. Department of Agriculture (USDA) requested that USDA's Economic Research Service conduct a comprehensive analysis of this topic. Impetus for the study, in part, derives from the Food, Agriculture, Conservation, and Trade Act of 1990, which says:

The Secretary of Agriculture . . . shall provide outreach and technical assistance to encourage and assist socially disadvantaged farmers and ranchers to own and operate farms and ranches and to participate in agricultural programs.

This report provides information about limited-resource farmers, defined by economic criteria and allowed a waiver of the processing fee on catastrophic crop insurance by the Federal Crop Insurance Reform Act of 1994. Regulations accompanying the 1994 Act defined a limited-resource farmer as a producer who has received less than \$20,000 in gross income from all sources in the previous 2 years and who has demonstrated a need to maximize farm income. We were unable to exactly match this definition with available data, but used similar economic criteria to define limited-opportunity farm operator households and small farms.

Our definition of socially disadvantaged farmers followed the definition commonly used by USDA. A socially disadvantaged group is defined as one whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. Those groups include African Americans, American Indians or Alaskan natives, Hispanics, and Asians or Pacific Islanders. Women have also been added to the list of socially disadvantaged farm operators.

The names of groups described in this report vary by section, and depend on the data source used in the analysis. Black, White, American Indian, and operators of Spanish origin are terms used in the census of agriculture. Where census data are used, we use these terms and, for brevity, have substituted Hispanic operators for operators of Spanish origin. The Federation of Southern Cooperatives has used the terms African American, European American, Native American, and Latino American to describe participants in its workshops. We use these terms in the section on the workshops. These different terms refer to essentially the same racial or ethnic groups.

Contents

	Page
Summaryiv
Introduction	1
Previous Research	1
Small, Limited-Resource Farms	1
Minority Farmers	3
Outreach and Technical Assistance by USDA	4
Farm Service Agency/Farm Loan Programs	4
Natural Resources Conservation Service	5
Risk Management Agency	5
Description and Analysis of Limited-Opportunity and Small Farms	6
Limited-Opportunity Farm Operator Households	6
Small Farms	10
Description and Analysis of Socially Disadvantaged Farm Operators	11
Farms Operated by Females	12
Farms Operated by Blacks	13
Farms Operated by American Indians	14
Farms Operated by Asians/Pacific Islanders	16
Farms Operated by Operators of Spanish Origin	17
Participants in the Federation of Southern Cooperatives	
Workshops	19
Background on the Workshops	19
Characteristics of Respondents	20
Use of Farm Programs	20
Crop Insurance Needs of Respondents	21
Approaches to Aiding Limited-Resource and Socially Disadvantaged Farmers	
New Products and Modifications of Products	22
New Marketing Methods	24
References	26
Appendix A. Limited-Opportunity Farm Operator Households	30
Appendix B. Small Farms	35
Appendix C. Farms Operated by Females	43
Appendix D. Farms Operated by Blacks	53
Appendix E. Farms Operated by American Indians	62
Appendix F. Farms Operated by Asians/Pacific Islanders	71
Appendix G. Farm Operators of Spanish Origin	80
Appendix H. Federation of Southern Cooperatives/LAF Questionnaire	89
Appendix I. The Federal Multiple-Peril Crop Insurance Program	91

Summary

Small U.S. farms and those run by socially disadvantaged minority operators tend not to purchase crop insurance or participate in insurance-type programs operated by the U.S. Department of Agriculture. This report traces the lack of use of such risk management measures to several characteristics of such farmers. They tend, more than the typical U.S. farm, to raise livestock rather than crops, and there are no government-sponsored insurance-type programs for livestock. Many of those who raise crops tend to concentrate on specialty crops such as fruits and vegetables rather than field crops that are the focus of most government programs. In many cases, farm income contributes less to the household's overall income, so a lack of insurance for the farm enterprise is less important than for a household more reliant on farm income.

The report identifies the characteristics and crop insurance needs of seven groups of farm operators. The first two groups are defined according to various economic criteria, while the remaining five are defined according to the gender or ethnic group of the farm operator:

- (1) 185,000 limited-opportunity farms (farm sales less than \$100,000, farm assets less than \$150,000, and gross household income less than \$20,000);
- (2) 351,000 small farms (agricultural sales less than \$20,000, farm operator said his or her principal occupation was farming or ranching, and farm operator worked fewer than 50 days off the farm);
- (3) 145,000 female farm operators;
- (4) 18,000 black farm operators;
- (5) 8,300 American Indian farm operators;
- (6) 8,100 Asian/Pacific Islander farm operators; and
- (7) 21,000 Hispanic farm operators.

Analysis of limited-opportunity farms is based on data from USDA's 1992 Farm Costs and Returns Survey, while analysis of the other groups is based on data from the 1992 Census of Agriculture. The report presents information on the groups of farms for the 10 regional service offices of USDA's Risk Management Agency (for example, the Oklahoma City regional office, the Billings regional office).

Although most farms in each of these groups harvested cropland, crops generally provided a smaller share of income than livestock. Over 70 percent of American Indian farms, for example, obtained more than half of their total sales from livestock. Farms operated by Asians/Pacific Islanders are an exception. More than 80 percent of the farms in this group obtained more than half of their total sales from crops. The types of crops harvested vary among the groups because they tend to be located in different regions.

- Hay is the commonly harvested crop on farms operated by American Indians, about

half of which are in the Oklahoma City (Southern Plains) and Billings (Northern Plains) regions. Almost all land farmed by American Indians is on reservations, a large portion of which is used for grazing.

- Nearly 60 percent of farms operated by Asians/Pacific Islanders in the Sacramento region (California, Arizona, Nevada, and New Mexico) grew fruits, nuts, or berries, and nearly 20 percent harvested vegetables.
- In the Oklahoma City (Southern Plains) region, which contains almost half of Hispanic-run farms, a higher proportion of Hispanic farms than of all farms grew fruits, nuts, berries, or vegetables. Hay, however, was the most common crop on these farms, reflecting the prevalence of livestock farms in the region.
- In the Raleigh region (roughly the east coast from North Carolina to Maine), tobacco accounted for half or more of total sales on nearly a third of black-operated farms. In the Jackson region, a larger share of black-operated farms than all farms obtained a majority of sales from cotton. Black-operated farms were also twice as likely as all farms to harvest vegetables.

Many farms operated by socially disadvantaged operators are small. Eighty percent or more of farms operated by females, blacks, and American Indians sold less than \$25,000 in agricultural products in 1992. However, less than half of the farms operated by Asians/Pacific Islanders had sales less than \$25,000, and 10 percent had sales of \$500,000 or more.

USDA's Risk Management Agency recently contracted with ERS to explore the characteristics and risk management needs of limited-resource and socially disadvantaged farmers. Findings of this research indicate that such farmers may be better served if insurance-type programs are extended to livestock and additional specialty crops.

Characteristics and Risk Management Needs of Limited-Resource and Socially Disadvantaged Farmers

Robert Dismukes, Coordinator
Joy L. Harwood
Susan E. Bentley

Introduction

This report examines the characteristics and risk management needs of limited-resource and socially disadvantaged farmers. Impetus for this study, in part, derives from Title XXV of the Food, Agriculture, Conservation, and Trade Act of 1990, which contains language addressing “outreach and assistance for socially disadvantaged farmers and ranchers.” Title XXV states that:

The Secretary of Agriculture . . . shall provide outreach and technical assistance to encourage and assist socially disadvantaged farmers and ranchers to own and operate farms and ranches and to participate in agricultural programs. This assistance should include information on application and bidding procedures, farm management, and other essential information to participate in agricultural programs.

In responding to this direction and the educational mandate in the Federal Crop Insurance Reform Act of 1994, the Risk Management Agency (RMA) has worked with the Federation of Southern Cooperatives (the Federation), an organization working at the grassroots level in rural communities in the South, to conduct crop insurance workshops for disadvantaged farmers. RMA has also reached limited-resource and minority farmers through the North American Precip media network, a public relations company with access to Hispanic, African American, and other audiences through 18,000 media outlets (U.S. Department of Agriculture, Risk Management Agency).

Note: One of the tools, mentioned throughout this report, available for farmers to manage their risk is the Multiple-Peril Crop Insurance Program. See Appendix I for a description of the program and a list of the commodities it covers.

To better understand the characteristics and risk management needs of limited-resource and socially disadvantaged farmers, and to help provide information for future efforts, RMA requested that the U.S. Department of Agriculture’s Economic Research Service (USDA, ERS) conduct a comprehensive analysis of this topic. The goal of this research is to better understand the farming patterns and risk management strategies of such farmers, and to provide ideas concerning potential new products and marketing strategies to better address these producers’ needs.

Previous Research

Previous studies on limited-resource and socially disadvantaged (or minority) farmers have focused to a large extent on socioeconomic and demographic characteristics, the attributes of successful farmers in limited-resource situations, and strategies to assist such farmers. Few studies have examined the participation of limited-resource and minority farmers in Federal agricultural programs, and no study appears to have focused on the risk management and crop insurance needs of such farmers.

Several studies focus on small-scale, limited-opportunity farmers. Others focus on minority farmers, particularly black farmers, who constitute a large proportion (by some estimates, about 60 percent) of all minority farmers. Both types of studies indicate similar characteristics among these groups, and provide similar recommendations for assistance.

Small, Limited-Resource Farms

One of the most comprehensive reports addressing the characteristics of limited-resource farmers was conducted by Perry and Ahearn, using 1988 data from USDA’s Farm Costs and Returns Survey (FCRS). Using financial crite-

ria, 200,000 farm operator households were identified as having limited economic opportunities.¹

Limited opportunity farm operators were generally over 65 years of age and had less formal education than other operators. They earned, on average, net farm business income of minus \$4,000. Their off-farm income averaged only \$6,000, compared with nearly \$32,000 for other farm households. In addition, limited-resource farmers were found to be less likely than other farmers to participate in USDA's commodity programs and received lower average payments because of their small acreages.

Perry and Ahearn concluded that agricultural policies do not significantly affect limited-resource operators, because program benefits are closely tied to production and many such farms produce very little output. The authors also indicated that many limited-resource farm operators may not be competitive in the off-farm labor market because of their age and education. As a result, vocational education and retraining targeted to this group, in an effort to increase their off-farm opportunities, may be most beneficial, given the competitiveness of large-scale agriculture.

Other studies have also addressed limited-resource situations and small farm characteristics. Small farms have been characterized as having limited access to land, capital, and skilled labor; as using mostly family labor; and generally as not taking advantage of new technology (Gebremedhin and Johnson; West). According to these authors, many small farms rely heavily on labor, rather than capital, and commonly operate roadside stands and pick-your-own outlets. Off-farm employment is often critical to the survival of many small farming operations.

Small farms are heterogeneous, and effective policies and programs need to take account of the diverse needs of this group (Gebremedhin and Johnson). Historically, strategies to assist limited-opportunity farmers in becoming more viable have generally emphasized improved

¹ The term "limited opportunity farm households" is used by Perry and Ahearn and other ERS researchers to refer to farm operator households that have low farm and low off-farm income and have few farm assets. This group is roughly consistent with "limited resource" farmers as described in the Federal Crop Insurance Reform Regulation of January 1995. Because the regulation in its definition of limited-resource farmers mentions income from all sources, we have used the farm household as the economic unit. Members of the household, not the farm business, receive income from off-farm sources. The farm asset qualification is used to try to eliminate from this definition farm households and farms that may have had low income only in the year that data were gathered.

education and the development of alternative markets. Recommendations include:

- New research to develop more effective ways for extension specialists to communicate to small farmers;
- Expanded use of small-farm paraprofessionals to provide technical assistance; and
- Research to provide information on new markets and the distributive effects of USDA programs (Gebremedhin and Johnson; West; Simon).

Given the heterogeneity of small farms, different definitions have been used to characterize them, and geographic location appears to be an important factor in explaining the results. In a recent article, California's small farms, which are defined in the article as having sales of between \$10,000 and \$100,000 annually, are cited as important contributors to the State's agriculture, accounting for more than \$1 billion in annual farm sales (Stumbos, 1993a). In contrast to the U.S. situation, California's small farms increased in number during the 1980's, and many appeared to be stable, efficient operations (Jolly, 1993).

Successful small farming operations in California are characterized as maintaining economic viability by using used, instead of new, equipment; relying on contractors to carry out capital-intensive activities; producing specialty products for small, but remunerative, markets; using diverse marketing outlets; seeking information to reduce production and marketing risks; and diversifying their income sources to include off-farm income (Jolly, 1993). Access to credit appears to be a greater difficulty for many of these small farming operations than the need for expanded marketing opportunities (Jolly, 1993).

Because aggregate U.S. data indicate that a large proportion of small farms are operated by older individuals, research has examined retired farmers as a group. For example, research based on the 1993 FCRS found that approximately 352,000 farm operators, or 17 percent of all operators, classified themselves as retired in 1993. Their farms were generally small, accounting for just 2 percent of the value of all farm production. Further, about 84 percent of farms with retired operators had sales less than \$10,000. They generally spent few hours per week working on the farm and relied heavily on Social Security (Hoppe).

The definition of "small farms" incorporates everything from ranches of several hundred acres in the Great Plains

to backyard gardens in cities. Some small-scale farmers have little off-farm income and have depended solely on farming income for many years, while others are hobby farmers (including an estimated one-third of California's small farmers) (Stumbos, 1996). Examples of other small farmers include retirees, recent immigrants, and organic farmers. Given this diversity, crop insurance outreach must be specially targeted to address many different small-scale situations, as described in later sections of this report.

Minority Farmers

The rapid decline in the number of black-operated farms in recent decades has focused particular attention on this group. While the size of U.S. farms in general has increased, the number of farms has fallen in the aggregate. Minority farms, however, have disappeared at almost double the rate of white-owned farms, declining by 91 percent during 1954-87, compared with a decline of 51 percent for white-owned farms (Brown, Christy, and Gebremedhin). In 1954, minority-owned farms made up 10 percent of all farms, while in the 1990's, they make up less than 2 percent (1992 Census of Agriculture).

The severe decline in minority-owned farms is generally attributed to their often small farm sizes. Historically, minority-owned farms had about half the acreage of white-owned farms, and because of their small size, many minority farmers were unable to efficiently use modern machinery or to earn adequate income from farming. In part because of small farm sizes and low incomes, access to credit has been difficult, and many small farm operators turned to other work (Beale). Tobacco, which for many years used hand labor and small acreages, is a principal source of farm income for black farmers (Banks). In some cases, lack of sufficient managerial training has meant that many farmers are less able to use the latest technological developments and to modify their farming operations (Brown, Christy, and Gebremedhin).

In their analysis of how structural changes in agriculture have affected black farmers, Brown, Christy, and Gebremedhin recommended strategies to increase the viability of black-operated farms with limited resources. Prominent among their recommendations were strengthening credit availability, improving technical assistance, and establishing USDA loans or grants to help farmers diversify into new enterprises.

Given the sharp decline in numbers, several studies have examined the characteristics of successful farms (particularly black-owned farms) with limited resources. A study

of black farmers in Alabama indicates that a high degree of participation in the off-farm workforce (both by the farmer and other family members) is associated with the survival of black farms, as is writing a will to keep land within the family (Zabawa, Siaway, and Baharanyi). Recommendations for assistance include education through extension programs, development of assistance through minority-owned financial institutions, and expansion of off-farm job training and employment opportunities.

Another study, involving black farmers in Louisiana, indicates that success is related to good management practices, knowledge and early adoption of new technology, a strong work ethic, love of farming, size of operation, participation in government programs, and strong family support (McLean-Meyinsse and Brown). The authors argue that important areas for change include improved education, emphasis on high-return enterprises (fruits and vegetables), restructuring of USDA programs (including the guarantee of acceptable returns to fruit and vegetable producers), expansion of off-farm employment opportunities, and improved access to credit.

In addition, work has addressed the linkage between USDA farm programs and the benefits accruing to black farmers. One such article indicates that black farmers receive a small proportion of program benefits due to their small acreages and under-participation in USDA programs (Jones, Hezekiah). With the exception of *ad hoc* disaster assistance, the percentage of black participants in USDA programs in 1989 was lower than the percentage of white participants (table 1). Similar findings appeared in an analysis of 1987 census data. Under-participation is attributed to a variety of factors, such as poor management, racial discrimination, the indifference of many limited-resource farmers to USDA programs, and lack of information (Jones, Hezekiah; U.S. House of Representatives).

Other minority groups have also been the focus of analysis, although to a lesser extent than black farmers. An article addressing Southeast Asian refugee farmers in California, for example, indicates that many Hmong, Thai, Laotian, Vietnamese, and Cambodian immigrants settled in the San Joaquin Valley in the 1980's. To a large extent, these producers focus on specialty vegetable production for Asian immigrant and Asian-American markets. The agriculture of Native Americans is discussed in various publications, including *Montana Reservation Land and Native American Agricultural Survey Results*, *Arizona Indian Tribes: Community Profiles*, and *Arizona*

Table 1 --Distribution of participation in selected Federal agricultural programs, by race, 1989

Program	All participants	Black participants		White participants	
		Black operators	All participants	White operators	All participants
	Number	Number	---Percent---	Number	--- Percent---
Agriculture Conservation Program					
Cost share	118,764	1,088	4.7	0.9	105,231
Conservation Reserve Program	66,496	499	2.2	0.8	60,824
Forestry Incentives Program	5,324	45	0.2	0.9	4,693
Deficiency payments	1,390,201	7,071	30.8	0.5	1,379,916
Disaster payments	382,610	6,140	26.7	1.6	350,763
Emergency feed assistance	29,312	37	0.2	0.1	25,541

Note: Total black operators = 22,950; Total white operators = 2,043,119.

Source: Jones, Hezekiah. "Federal Agricultural Policies: Do Black Farm Operators Benefit?" *The Review of Black Political Economy*. Spring 1994, Vol. 22, No. 4 p 47. (Data for table obtained from U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service and National Agricultural Statistics Service.

Land and People: Arizona's Indian Agriculture. These sources, as well as others, are discussed later in this report.

Outreach and Technical Assistance by USDA

Much of the research on limited-resource and minority farmers indicates that their access to credit and useful technical and outreach assistance is of key importance. Researchers generally argue that limited-resource farmers would be best helped through easing access to capital for farmland and other improvements and improving access to information and education, helping achieve greater efficiency. Various USDA programs, as described in the following paragraphs, have attempted to address these needs.

Farm Service Agency/Farm Loan Programs

USDA's Farm Service Agency (which includes programs of the former Farmers Home Administration, or FmHA) provides low-cost loans to qualifying producers. Due to the importance of access to capital, several mechanisms have been established to aid limited-resource and socially disadvantaged producers.² For example, a specific proportion (about 10 percent) of Congress's annual appropriation for Farm Service Agency (FSA) operating and farm

² A socially disadvantaged group is defined as one whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. Those groups include African Americans, American Indians or Alaskan natives, Hispanics, and Asians or Pacific Islanders. Women have also been added to the list of socially disadvantaged farm operators.

ownership loans is set aside for socially disadvantaged producers (Callin). In addition, producers who meet all loan eligibility requirements, but have low incomes and cannot meet the regular rate, may qualify for a reduced interest rate that usually is 1-1/2 to 2 percentage points below the regular FSA rate for direct operating and direct farm ownership loans (Callin).

FSA/Farm Loan Programs have also implemented a "Small Farmer Outreach Training and Technical Assistance Program" designed to enhance the viability of small farmers and improve farmers' and ranchers' abilities to repay their farm loans. Under the program, grants have been made available to 28 entities (including 1890 institutions, nonprofit organizations, and Native American community colleges) for outreach and assistance. Over 2,500 FSA borrowers have been served by these efforts (U.S. Department of Agriculture, Natural Resources Conservation Service, 1995).

Under this program, grant recipients must provide technical assistance to qualifying applicants, assisting them in applying for loans and in developing sound farm management practices. In addition, grant recipients are responsible for identifying and removing obstacles that prevent the full participation of socially disadvantaged farmers in FSA farm ownership and operating loan programs. One of the goals of the program is for participating FSA loan producers to, in time, be eligible for commercial borrowing (Just-Buddy).

Producers are chosen for the program based on their desire to continue farming, willingness to work with FSA and the grant-recipient college or organization, and prospects for a profitable operation. Before selecting a participant, the grant-recipient college or organization

may request a meeting with the farmers or ranchers or visit their farm or ranch.

Natural Resources Conservation Service

USDA's Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, provides conservation assistance to farm operators, including cost-share assistance for conservation practices. For limited-resource and socially disadvantaged producers, the cost-share rate paid by the Government may be higher than that in effect for producers who are located in areas with a small proportion of disadvantaged producers. Free technical assistance is provided to all producers at the producer's request (Fuller).

NRCS has tailored the agency's conservation programs to reach farmers whose behavior they hope to influence. To encourage use of such voluntary practices, NRCS has emphasized the ways in which conservation practices complement the producer's efforts to attain his or her goals, including information on how conservation practices are compatible with existing enterprises on the farm and the farm's level of technology (U.S. Department of Agriculture, Soil Conservation Service).

Broad guidelines have been used so that programs can be developed to best suit the needs of an area's socially disadvantaged farmers. Outreach efforts have included demonstrations, displays, slide shows, presentations, and other methods. Examples of such efforts include (U.S. Department of Agriculture Natural Resources Conservation Service, Strategic Planning Team):

- Cooperative outreach sponsored jointly between Florida NRCS and Florida A&M University, using one-on-one contacts, television spots, and community forums to increase awareness of and participation in NRCS programs.
- Research funding for the University of California at Davis to investigate NRCS's ability to reach Hispanic producers through outreach efforts.
- Attempts to reach the Asian Hmong community in the Fresno, California, area through the use of a resource conservation specialist liaison, the distribution of employment recruitment packets in high schools, and fact sheets in the Hmong language.

In its efforts, NRCS has emphasized one-on-one assistance, as well as tailoring information to distinct audiences and their particular needs. In some instances, the agency has investigated the availability of marketing out-

lets and the development of cooperatives to encourage farmers to raise new crops without harming the environment. In other situations, the agency has found it beneficial to work closely with community leaders in introducing new practices, using those individual farms as "show-places" to which other producers in the community can relate (Fuller).

NRCS has also focused on understanding the number, location, and specific problems of socially disadvantaged farmers in various locations, including a detailed analysis using the 1987 Census of Agriculture (Ross). In addition, NRCS has held workshops, chaired conferences to learn more about the specific needs of socially disadvantaged farmers, and funded studies and outreach through colleges and universities (Kraft; U.S. Department of Agriculture, Natural Resources Conservation Service, Strategic Planning Team).

Risk Management Agency

In addition to the educational efforts noted in the introduction to this report, the Risk Management Agency (RMA) has also developed outreach and marketing plans through its regional service offices (RSO's). RMA's efforts, like those undertaken by NRCS, have focused on outreach specific to individual areas and groups of producers. The marketing plans include information on limited-resource farmer locations and characteristics, as well as local contacts familiar with limited-resource and minority farmer issues that can be (or have been) used in developing outreach programs (Hall).

The plans were designed to increase the number of minority insurance agents and to increase awareness of the need to include minority farmers in the activities of farm associations, the media, and extension agents. In addition, the plans were designed to improve relationships with minority farm organizations and to increase the awareness and participation of minority farmers in the crop insurance program (Jenkins).

Generally, the plans focus on outreach methods tailored to each RSO area. Media tools used by the RSO's for outreach include videotapes, articles in county FSA newsletters explaining the crop insurance program, workshops and projects sponsored by minority universities, information spots on minority radio and television stations, presentations at minority farm association meetings, and outreach through minority extension agents. The plans emphasize the need to work through minority institutions and agents in undertaking outreach efforts (Edgington).

Program provisions are also in effect for limited-resource farmers who meet specific requirements (Federal Register). Specifically, the \$50 processing fee at the catastrophic (CAT) level of crop insurance coverage is waived for qualifying limited-resource farmers. A limited-resource farmer is defined as a producer (including new producers) with an annual gross income of less than \$20,000 derived from all sources of revenue for each of the prior 2 years, and as a producer who demonstrates a need to maximize farm income.

According to RMA data, as of the end of November 1995, there were 24,482 policies qualified for the fee waiver on CAT coverage, applying to about 203,000 acres (table 2). Thus, the processing fee was waived on an average of about 8 acres per policy. The largest net acreage covered by the waiver was in Arkansas (about 16 percent of the U.S. total), Kentucky (10 percent), and Virginia (7 percent). The largest liability associated with fee-waived policies was in Kentucky, Tennessee, and Virginia.

Description and Analysis of Limited-Opportunity and Small Farms

In this section, we examine two groups of farm operators and their characteristics. We provide data that describe groups identified as needing special consideration because of their economic condition. Data on the first group (limited-opportunity farms) are from USDA's 1992 Farm Costs and Returns Survey (FCRS), which includes detailed financial data and data on the purchase of crop insurance. Data on the second group (small farms) are from the 1992 Census of Agriculture, which allows a more detailed regional analysis than does the FCRS, but does not contain information on crop insurance.

For the limited-opportunity farm operator households, we analyzed the structure of household income from both on-farm and off-farm sources. For the small farms, we analyzed farm location, size, enterprise mix, and crops harvested, as well as the age and experience of the farm operators at the national and RSO levels. The analyses of these two groups provide an overview of small-scale farming, with detailed discussions of possible crop insurance assistance reserved for later in the report.

Limited-Opportunity Farm Operator Households

A full picture of the economic condition of people engaged in farming needs to include the off-farm, as well

as the on-farm, economic activities of farm household members. Many U.S. farm households receive income from both on-farm and off-farm sources. Off-farm income often comes from wages or salaries of an off-farm job, business income from an off-farm business, or Social Security or other retirement income.

Consideration of all sources of household income is particularly important to understanding the management of farm risks, since off-farm income can be used to offset and stabilize fluctuations in farm income.

ERS develops and regularly reports statistics describing the household income of U.S. farm operator households.³ Farm operator households, for farms with more than one operator, such as partnerships and family corporations, are defined as the households of the senior operators. Excluded are households associated with farms organized as nonfamily corporations or cooperatives and farms where the operator, as a hired farm manager, does not receive any net income of the farm business. The household consists of all persons dependent on the household for financial support, whether they live in the household or not. Students away at school, for example, are counted as household members if they are dependents.

Farm operator households can receive income from farm and off-farm sources, and incomes from both can be negative. Household farm income includes:

- The portion of net income of the farm received by the household of the senior operator;⁴
- Cash received by the household for renting out farmland;
- Net income from other farm businesses; and
- Wages and salaries paid to the operator and other household members by the farm business.

Household off-farm income includes:

- Off-farm wages and salaries of all household members;

³ Farm operator household income is published monthly in *Agricultural Outlook* and three times a year in *Agricultural Income and Finance Situation and Outlook*.

⁴ The net income of the farm is calculated as the net cash income of the farm business, excluding income the business receives from renting out farmland, and including farm labor costs paid to household members as expenses, less depreciation.

Table 2--Catastrophic coverage with administrative fee waivers due to limited resources, by, State, ranked by liability, 1995

State	Policies	Net acres	Total premium	Liability	Indemnities payable
	<i>Number</i>	<i>Acres</i>	<i>----- Dollars -----</i>		
Kentucky	8,140	19,775	194,406	8,635,997	1,005
Tennessee	4,093	13,075	185,603	5,431,007	3,065
Virginia	1,141	13,755	75,421	2,026,927	928
North Carolina	1,377	3,929	51,777	1,299,758	4,256
Arkansas	1,205	32,484	140,328	1,208,542	2,376
Ohio	959	6,088	30,841	713,785	201
Kansas	637	15,986	35,445	666,035	20,862
Illinois	1,339	9,719	25,863	452,610	3,720
Missouri	1,024	12,276	53,807	450,738	5,801
Indiana	566	5,359	15,922	421,657	1,227
Mississippi	487	6,720	36,122	345,471	3,192
Nebraska	446	7,620	16,469	331,925	3,305
Michigan	400	4,591	16,874	240,298	55
South Dakota	169	7,472	22,097	227,203	11,930
Texas	617	7,619	28,511	224,886	4,990
Oklahoma	300	7,390	16,461	198,472	8,071
Iowa	59	2,582	5,395	185,101	2,390
West Virginia	212	340	12,351	176,864	0
Georgia	49	1,115	9,766	171,130	168
Washington	96	4,667	5,194	159,823	0
Louisiana	388	1,945	12,667	157,391	61
Colorado	113	4,347	11,684	149,073	3,837
Pennsylvania	77	2,508	7,213	123,095	0
Idaho	46	1,306	3,226	87,828	0
Wisconsin	93	1,519	6,913	84,954	1,156
California	11	276	2,078	77,908	0
Vermont	5	717	2,613	48,516	0
South Carolina	65	954	5,429	36,502	9,310
Minnesota	61	1,109	3,633	35,780	761
North Dakota	74	1,960	3,663	35,755	1,220
Alabama	104	902	3,510	30,617	507
Utah	12	1,021	1,647	24,871	737
Florida	30	213	1,309	20,326	0
New York	24	521	1,479	18,483	0
Montana	15	560	958	13,165	49
Oregon	37	350	964	12,579	0
Delaware	3	71	137	3,805	0
Wyoming	4	43	153	2,891	0
Maryland	2	6	80	2,568	0
Maine	2	9	65	2,303	0
Alaska	0	0	0	0	0
Arizona	0	0	0	0	0
New Mexico	0	0	0	0	0
Total	24,482	202,899	1,048,074	24,536,639	95,180

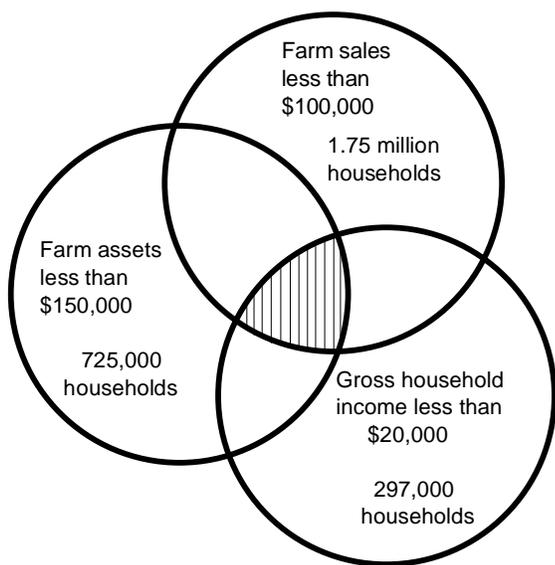
Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on data from the Actuarial Branch, Information Unit, Federal Crop Insurance Corporation, November 27, 1995. Correction to California data made by Sacramento Regional Service Office, January 29, 1996.

- Net income of any nonfarm business, interest, and dividends; and
- All other cash off-farm income of household members.

For this report, ERS updated the 1988 Perry and Ahearn report discussed in the “Previous Research” section of this report, slightly modifying the exact definition of limited-opportunity farm operator households to more closely match the definition of “limited-resource farmer” in the Federal Crop Insurance Reform Act regulation.⁵ For a farm operator household, we required that three criteria be met:

- Gross value of sales of farm products of less than \$100,000;
- Value of farm assets of less than \$150,000; and
- Total household income from farm and off-farm sources of less than \$20,000.

Figure 1
Definition of limited-opportunity farm operator households



About 185,000 of 2.1 million farm operator households meet all three criteria and are defined as limited-opportunity farm operator households.

Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on data from the 1992 Farm Costs and Returns Survey, USDA.

⁵ The Federal Crop Insurance Reform Act regulation defines a limited-resource farmer as a person who has less than \$20,000 annual gross income from all sources of revenue for each of the prior 2 years.

According to the 1992 Farm Costs and Returns Survey, about 185,000 of the 2.1 million farm operator households are limited-opportunity farm operator households (app. table A-1).⁶ Most limited-opportunity farm operator households are located in the South.⁷ The South also contains a disproportionately large number of limited-opportunity farm operator households. Although the South has 40 percent of all farm operator households, it has 60 percent of limited-opportunity households. The Midwest, in contrast, has proportionately fewer of its farm operator households classified as limited opportunity.

The operators of farms associated with limited-opportunity farm households tend to be older and have less formal education than the operators of all farm operator households. While about a quarter of farm operators in all farm households are 65 years old or older, about half of the limited-opportunity household farm operators are 65 years or older. Slightly more than half of all limited-opportunity farm operators have less than a high school education, while only 22 percent of the operators in all farm operator households have less than a high school education.

The relative importance of on-farm and off-farm sources of income varies between limited opportunity farm operator households and all farm operator households (app. table A-2). Limited-opportunity farm operator households have, by definition, lower incomes than all farm operator households. Nevertheless, farm income is a smaller share of total household income for limited-

⁶ The FCRS is a probability-based survey conducted annually by USDA’s Economic Research Service (ERS) and the National Agricultural Statistics Service (NASS) in all States except Alaska and Hawaii. For the 1992 FCRS, approximately 11,000 farms and ranches (establishments from which \$1,000 or more agricultural products were sold or would normally have been sold) were contacted and their operators personally interviewed in February and March 1993. The questionnaire referred to calendar year 1992. Sample data from the FCRS interviews are expanded by probability-based weights to produce estimates of all farms in the contiguous United States. As with all sample surveys, estimates from the sample can differ from values that would have been tabulated from a complete enumeration of all farms. A measure of sampling variability (the standard error of the estimate) is calculated, expressed as a percentage of the estimate, and called the relative standard error (RSE). The RSE can be used to evaluate the statistical differences between groups and is included in the tables of data from the FCRS.

⁷ The South as defined here includes the USDA farm production regions of Appalachian, Delta States, Southeast, and Southern Plains, as well as Delaware and Maryland. A map of the USDA farm production regions is included as figure 2.

Figure 2

Map of USDA farm production regions

opportunity farms, about 10 percent versus 17 percent for all farm operator households.⁸ Another way of looking at this is that off-farm income contributes a larger share to household income for limited-opportunity farm households than it does for all farm operator households.

The relative importance of different sources of off-farm income also varies between limited-opportunity farm operator households and all farm operator households. Wages and salaries are the leading sources of off-farm income for all farm operator households, but “other off-farm income,” including Social Security, is the leading source for limited-opportunity farm operator households. This is not surprising given the high proportion of limited-opportunity farm operators who are more than 65 years old.

Livestock production is economically more important than crop production on farms run by limited-opportunity operator households (app. table A-3). Livestock sales accounted for more than half of gross cash farm income from farm businesses run by limited-opportunity households. Crop sales accounted for only 30 percent of gross

cash farm income for the limited-opportunity farms. Nationally, livestock sales accounted for 45 percent of cash farm income, and crop sales for 42 percent.

Although farm businesses associated with limited-opportunity farm households had a much lower level of cash expenses than farm businesses associated with all farm operator households, the relationship of fixed to variable expenses was about the same between the two groups of farms. Crop insurance expenditures, a fixed expense, varied considerably between limited-opportunity and all farms. Almost none of the limited-opportunity farms purchased crop insurance in 1992, while 12 percent of all farms did. Large shares of both groups of farms associated with limited-opportunity farm households and those associated with all farm households had debt outstanding at the end of the year, though the level of debt in relation to assets was lower for limited-opportunity farms, only 3 percent.

Farms associated with limited-opportunity farm households are smaller in economic terms by definition, and also smaller in land area (app. table A-4). Limited-opportunity farms operated 77 acres per farm household, compared with 449 acres per farm for all farm operator households. Limited-opportunity farms were much less likely to harvest soybeans or corn or any contract payment crop.

⁸ Farm income varies considerably among limited-opportunity operator households as evidenced by a large relative standard error of this estimate. Many have negative farm income, and some have very large negative farm income.

Small Farms

The preceding section presents results from the 1992 Farm Costs and Returns Survey (FCRS) that address small farms with low farm and off-farm income. Although the FCRS provides detailed information on sources and amounts of off-farm income as well as the financial structure of farm businesses, its sample size restricts its use in measuring the characteristics of small, limited-opportunity farms in particular regions of the United States.

To analyze low-income farms at the Risk Management Agency service region level, we used the 1992 Census of Agriculture. The set of census records is very large (about 1.6 million records) and contains acreage and production data on an extensive list of crops, making it possible to analyze smaller groups of farms. The census data, however, do not contain financial information on off-farm income or complete farm financial information for every single farm, restricting our ability to precisely identify farms that would meet the limited-resource definition of the Reform Act regulation.

Using the census data, we identified farmers with low gross income from farming, who considered themselves farmers, and who worked little off the farm. We set the following definition of a small farm (fig. 3):⁹

- Value of agricultural products sold totaled less than \$20,000;
- Principal occupation of the operator, based on 50 percent or more of time spent, was farmer or rancher; and
- Farm operator worked less than 50 days off the farm.

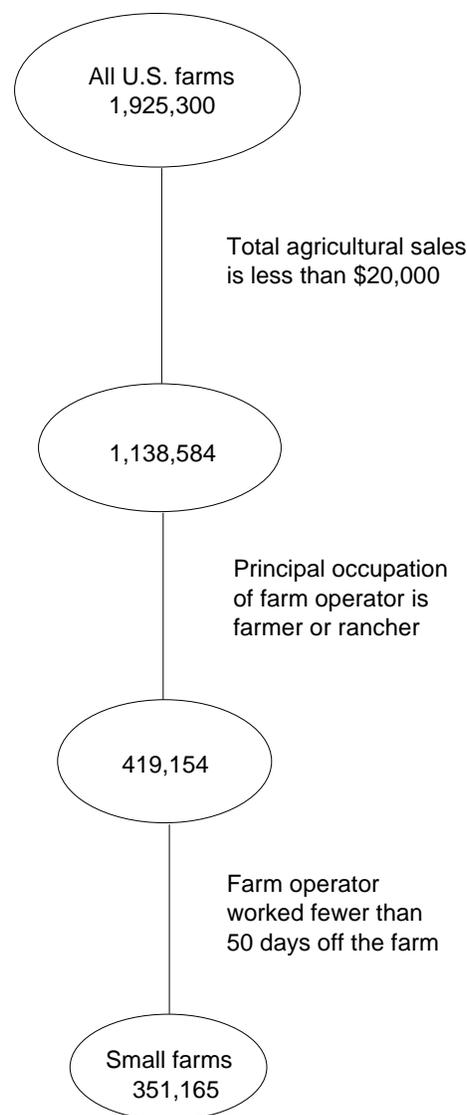
Many U.S. farms are small. According to the 1992 Census of Agriculture, about 60 percent of U.S. farms had total sales of all agricultural products of less than \$20,000. To include in our group of small farms only those where farming was the operator's main economic activity, we added the conditions on principal occupation and off-farm work.¹⁰ We were unable, using the census of agriculture, to consider income from off-farm sources, including wages or salaries of the operator's spouse and retirement income.

⁹ The census of agriculture defines a farm as "any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year."

¹⁰ The operator is the only household member on which the census has data.

Figure 3

Definition of small farms



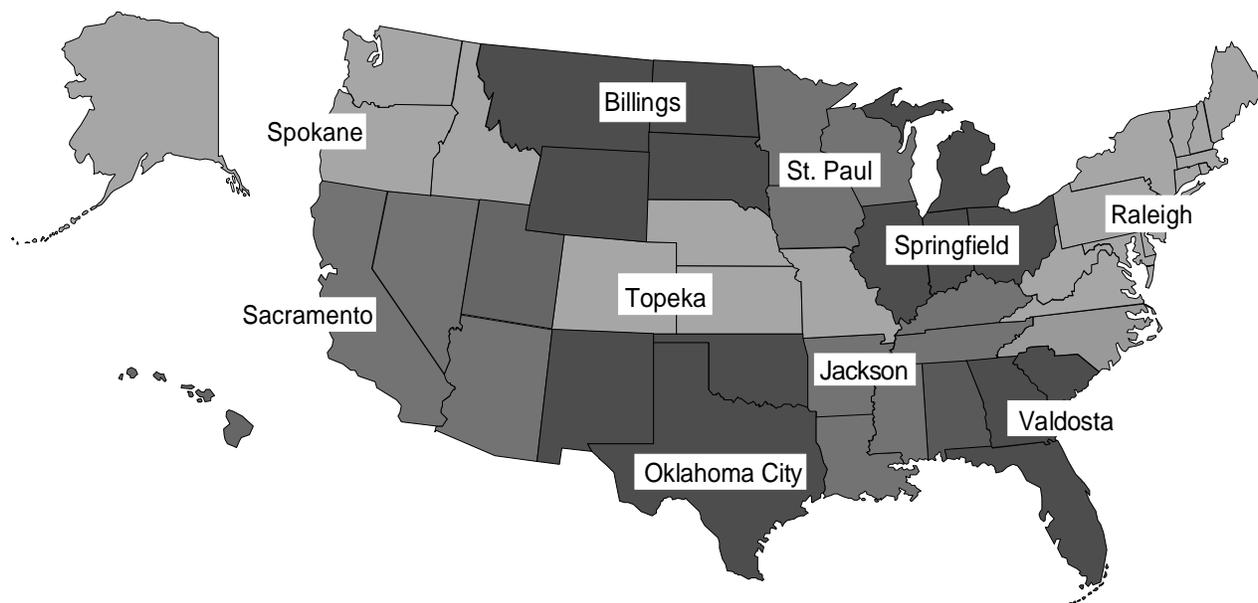
Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on data from the 1992 Census of Agriculture, U.S. Department of Commerce.

About 350,000 farms (18 percent of all U.S. farms) met our definition of a small farm. The small farms are spread among the regional service office areas, with each crop insurance service region having at least 12 percent of its farms classified as small farms and the Oklahoma City, Jackson, Raleigh, and Valdosta regions each having 20 percent or more of their farms classified as small (fig. 4, app. table B-1, app. fig. B-1).

Operators of small farms are older than the general population of all farm operators (app. table B-2). On average, small farm operators are more than 10 years older, and

Figure 4

Crop insurance service regions



nearly 60 percent of small farm operators, in contrast with 25 percent of all operators, are 65 years old or older. In addition, a higher share of small farm operators than all farm operators are women. Given the higher proportion of small farm operators over the age of 65, many female small farm operators (defined in the census as the person who makes the day-to-day decisions) may be widows.

Although small U.S. farms were about as likely as larger farms to harvest cropland, their average cropland acreage is much smaller than that of all farms (app. table B-3). About three-quarters of both small farms and all farms harvested cropland, but small farms harvested 44 acres per farm and all farms harvested nearly 200 acres.

Crop sales account for a smaller share of the farm sales of small farms than of all farms. Only 40 percent of small farms received 50 percent of the value of their farm sales from crops, in contrast with 45 percent of all farms (app. table B-4). Among crops, cash grains are less frequently the source of most farm sales on small farms than on all farms. Only 15 percent of small farms harvested corn for grain, versus 26 percent of all farms, and 9 percent of small farms harvested wheat, versus 15 percent of all farms (app. table B-5, app. fig. B-2). Soybeans are also less frequently harvested on small farms, but tobacco is slightly more common on small farms.

Description and Analysis of Socially Disadvantaged Farm Operators

Rather than using financial criteria to delineate disadvantaged producers, the following groups are defined by the gender, race, or ethnicity of the farm operator in this section.¹¹ The groups of farm operators are:

- females;
- blacks;
- American Indians;
- Asian or Pacific Islanders; and
- operators of Spanish origin.

Each of these sections analyzes how the group differs from, or is similar to, the general population of farm operators and farms and provides information on the characteristics of each group. The analysis draws heavily

¹¹ The census of agriculture defines a farm operator as “a person who operates a farm, either doing the work or making daily decisions about such things as planting, harvesting, feeding, and marketing. The operator may be the owner, a member of the owner’s household, a hired manager, a tenant, a renter, or a sharecropper.”

on the census of agriculture, as well as discussions with extension specialists, small farm advisors, and agricultural commissioners' offices. In addition, data from various sources other than the census are included.

Farms Operated by Females

According to the census of agriculture, about 8 percent of U.S. farms were operated by females in 1992. The proportion of farms operated by females ranged from about 4 percent in the St. Paul region to about 12 percent in the Sacramento region (app. table C-1). The percentage of farms operated by females in the West may be higher than in other areas, because a fairly large proportion of individuals involved in specialty and organic farming in that area are female (Humphrey; Miller).

Across the United States, female farm operators generally are older and have less experience as the primary operator of their farm, than all farm operators (app. table C-2). More than one-third of all female operators are 65 years old or older, in contrast with about a quarter of all farm operators. Further, about 40 percent of the female operators have operated their farm for less than 5 years, versus 12 percent of all farm operators. This suggests that many female farm operators became primary farm decision-makers late in life, perhaps as widows. It is not uncommon for a woman to become the recognized farm operator after the death of her husband (Perry and Ahearn, 1994; Rosenfeld; Effland and Rogers).

Although female operators are on average older and have less experience farming, considerable diversity exists. Female operators at times have acquired and developed their farming enterprise themselves, making all decisions associated with the farm and relying solely on farm income. Situations exist where the woman makes the decisions for the farming operation, while her husband's primary occupation involves working at an off-farm job (Patrick). Finally, women involved in farming often operate farms jointly with their husbands (Perry and Ahearn).

Census data indicate that farms operated by females are, in general, smaller than the U.S. average. About 80 percent of farms operated by females, versus 63 percent of all farms, had less than \$25,000 in agricultural sales in 1992 (app. fig. C-1, app. table C-3). Female-operated farms are also smaller in land area, operating an average of 309 acres, versus 491 acres for all farms.

The proportion of farms harvesting cropland is lower for female-operated farms than it is for all farms, and female-headed farms harvesting cropland harvested less acreage

(app. table C-4). Sixty-three percent of farms operated by females harvested cropland, while 78 percent of all farms did. Those female-operated farms harvesting cropland harvested an average of 85 acres per farm, compared with 198 acres for all farms.

Further, 38 percent of female-operated farms were primarily crop farms, considerably less than the 45 percent of all farms classified as crop farms (app. table C-5). Female-operated farms were only about half as likely as all farms to receive most of their sales from cash grains (app. fig. C-2, app. table C-6) and were only about half as likely to harvest a contract payment crop (app. table C-7).

Research based on the 1992 Farm Costs and Returns Survey also indicates that female-operated farms are smaller than male-operated farms. Because of their smaller scale and size, farms operated by women had lower net worth and gross sales. Only 41 percent of the female-operated farms could be considered to be in a favorable financial condition (with a positive net farm income and a debt/asset ratio under 0.4), compared with 44 percent of male-operated farms and 55 percent of the joint husband-wife farms. In addition, a high proportion of female-operated farms relied on off-farm income (Perry and Ahearn, 1994).

While previous discussions focus on female farm operators, it is important to note that women are a more critical factor in farm decisionmaking than data focusing solely on female operators may indicate. Many farm women are not the primary operator, although they play an important role on farms and are involved in farm decisionmaking, including farm bookkeeping and marketing. In Indiana in the mid-1980's, for example, the primary farm recordkeeper on two-thirds of the State's farms were women (Taylor, Robert). Women often are also responsible for following and charting daily futures price movements, as well as other farm activities (Tanner; Baquet; Patrick).

In its outreach programs, RMA may find that risk management sessions or workshops are the most useful method to address the needs of female farm operators and farm women. Outreach may reach a wider audience if workshops are targeted to risk management issues, and if they do not necessarily focus solely on crop insurance. By focusing broadly, the importance of accurate record-keeping in obtaining farm loans can be linked with the usefulness of crop insurance as a safety net to strengthen the farm's portfolio. Similarly, linkages can be made between price risk management and crop insurance in the

development of a farm-level risk management strategy. One-on-one assistance in farm management, including crop insurance, would be a useful follow-up to such general workshop sessions.

Workshops and training sessions on farm issues and decisionmaking have at times been targeted to female audiences. The Agricultural Women's Leadership Network, the umbrella for 12 female-based farm organizations (including Women Involved in Farm Economics, American Agri-Women, and other groups), meets twice annually and includes time within its programs for workshops and information sessions (Tanner). Extension specialists have at times targeted sessions to women in farming, although care must be taken to sponsor programs so that all interested in the program are welcome (Taylor, Robert).

Farms Operated by Blacks

While the number of black-operated farms in the United States has declined dramatically (blacks accounted for about 1 percent of U.S. farm operators in 1992), blacks make up considerable shares of the farm operator populations in several Southern States. They account for 9 percent of the farm operators in South Carolina, 8 percent of the farm operators in Mississippi, and about 4 percent of the farm operators in Alabama, Louisiana, and North Carolina (app. table D-1). About three-fourths of U.S. black-operated farms are in the Jackson, Valdosta, and Raleigh service regions (app. fig. D-1).

Black farm operators are on average older than all farm operators, and a larger proportion of black farm operators are 65 years old or older than all farm operators (app. table D-2). Nearly 40 percent of black farm operators are 65 years old or older, versus 25 percent of all farm operators. Even more striking is the lack of young black farm operators. Only 5 percent of black farm operators are younger than 35 years, versus 11 percent of all farm operators.

Despite being older, black farm operators, according to the census of agriculture, have operated their farms fewer years than all farm operators: 18 years on average for black operators versus 20 years for all farm operators. About half of black farm operators reported operating their farm less than 5 years.¹²

¹² This does not necessarily mean that blacks are less experienced than all operators at farming. The census asked, "In what year did the operator (or senior partner) begin to operate any part of this place?" Several contacts questioned the census data, stating that many blacks have been operating on their land for many years.

Many black-operated farms have low levels of sales (app. table D-3). Nearly 90 percent of black-operated farms sold less than \$25,000 in agricultural products. Black-operated farms are in general smaller in acreage than all farms. Black-operated farms harvested less than half the cropland acreage of all U.S. farms (app. table D-4). Even though farms operated by blacks are in regions where all farms are smaller than the U.S. average, black-operated farms are smaller than all farms in these regions. In the region served by the Jackson RSO, for example, farms operated by blacks averaged 120 acres, versus 214 acres for all farms.

Farms operated by blacks are less likely than all U.S. farms to harvest crops, though in the Valdosta and Raleigh regions, about the same proportion of black-operated farms as all farms harvest crops (app. table D-4). Among those farms harvesting cropland, black-operated farms harvested less acreage than all farms. In the Jackson region, black-operated farms with cropland harvested about two-thirds as many acres per farm as all farms. In the Valdosta and Raleigh regions, black-operated farms harvested only half as many acres per farm as all farms.

Small farm size has been cited as one factor that continues to threaten the economic viability of black-operated farms. As a strategy that can take advantage of the small acreages on black-operated farms, 1890 land-grant university extension programs in several Southern States have promoted vegetables and other specialty enterprises that are potentially profitable on small farms (Brown, 1996; Burton; Crump).

Crop sales, as opposed to livestock sales, are generally slightly less likely to account for most farm sales on black-operated farms (app. table D-5). An exception is the Raleigh region, where many black-operated farms grow tobacco. In this region, about 65 percent received most of their sales from crops. Tobacco accounted for more than half of total sales on nearly one-third of the black-operated farms in the Raleigh region. In the Jackson region, more than double the share of black farms as all farms received most of the value of their sales from cotton.

Tobacco, corn, and soybeans are the most frequently grown crops on farms operated by blacks (app. fig. D-2, app. table D-6). While black-operated farms are about as likely as all U.S. farms to harvest corn and soybeans, they are nearly twice as likely to harvest tobacco. In the Raleigh region, which contains about 20 percent of all black-operated farms, the proportion of black-operated

farms harvesting tobacco is nearly three times that of all farms in the region. Corn and soybeans are also frequently harvested by black farm operators in the Raleigh region.

Vegetables are more common on black-operated farms than on all farms. In the Jackson region, vegetables were harvested in 1992 on slightly more than 4 percent of the black-operated farms, versus just under 2 percent of all farms. Greens, cabbage, squash, okra, sweet corn, and watermelons are common vegetable crops on black-operated farms in Louisiana and southern Mississippi (Burkett). In the Valdosta region, 10 percent of black-operated farms harvested vegetables. Watermelon, cantaloupe, and okra are common vegetable crops on black-operated farms in South Carolina (Crump).

At the U.S. level, black-operated farms are less likely to harvest a contract payment crop than are all farms. However, in the Jackson, Raleigh, and Valdosta regions, which contain almost all U.S. black-operated farms, they are more likely than all farms to harvest a contract payment crop (app. table D-7). In the Valdosta and Raleigh regions, where high proportions of black-operated farms harvest corn, and in the Jackson region, where a high proportion of black-operated farms harvest cotton, black farms were more likely than all farms to harvest a contract payment crop.

Several contacts mentioned that black farm operators are aware of crop insurance, but face obstacles to participation (Burkett; Crump). In many cases, the low value of sales on black-operated farms means that black farmers have difficulty in financing all inputs, including crop insurance. In addition, black farmers who are beginning to grow specialty crops may find that insurance is not yet available. Data on which to base yield guarantees and assess risks is not likely to be available for many of the specialty crops grown by small-scale black operators.

Farms Operated by American Indians

According to the 1992 Census of Agriculture, 8,346 farms were operated by American Indians. A caveat, however, must be noted regarding the census data. Individuals responding to the census identify themselves as to their racial or ethnic group. According to the Intertribal Agriculture Council, American Indian farm operators in areas with large concentrations of American Indians may be under-reported, while those in other areas (such as the Southeast) may be over-reported (Racine). Nonetheless, the census is the only comprehensive source of data characterizing American Indian farms, and pro-

vides a national perspective on American Indian agriculture.¹³

According to the census, American Indian farms account for less than 0.5 percent of all U.S. farms. American Indian-operated farms, however, contain large acreages and account for about 5 percent of the U.S. land in farms.¹⁴

American Indian farms account for sizeable portions of land acreage in several States: 10 percent or more of the land in farms in South Dakota, New Mexico, Nevada, and Washington, and 60 percent or more of the land in farms in Arizona. Census data indicate that about two-thirds of American Indian farms are located in the Billings, Oklahoma City, and Sacramento RSO areas (app. fig. E-1, app. table E-1).

Virtually all land farmed by American Indians is on reservations. This land may be tribal land that is farmed by the tribe as an entity (a tribal farm) or tribal land that is rented to an individual or groups of individuals. In contrast to tribal land, reservation land may be heirship (or allotment) land. Heirship land refers to a specific tract of land that may be in a family for several generations, with many individuals having an interest in the tract and receiving income from it. This land may be farmed by its heirs, or it may be rented. Both situations, tribal and heirship land, typically exist on a given reservation. In each situation, the operator(s) of a given tract decides on the use of the land and on the purchase of crop insurance.

A large proportion of Indian agricultural land is used as grazing land and a significant portion (including both grazing and cropland) is leased. According to the Intertribal Agriculture Council, 20 percent of U.S. reservation grazing land is leased to non-Indians, as is 70 percent of the reservation cropland (Racine). A larger pro-

¹³ A recent joint National Agricultural Statistics Service-Intertribal Agriculture Council (NASS- IAC) report provides evidence as to the discrepancies reported in American Indian farm numbers. The NASS-IAC survey, conducted only for Montana, indicates that 900 Montana farms and ranches were operated by American Indians in 1994, while the Bureau of Indian Affairs indicates 579 full-time farms in 1994. The census of agriculture data report 431 American Indian farms in Montana in 1992. The census may undercount American Indian farmers, because an entire Indian reservation, which may have many Indian farmers, is sometimes counted as one farm with one operator.

¹⁴ All land in Indian reservations used for growing crops or grazing livestock was included in land in farms. Land in reservations not reported by individual Indians or non-Indians was reported in the name of the cooperative group that used the land. In some instances, an entire Indian reservation was reported as one farm.

portion of reservation farmland appears to be leased to non-Indians in the Northern Plains than in the Southwest (Jones, Howard; Rethwisch).

American Indian agriculture is varied, both within and across regions. Within a reservation, for example, the tribal farm is typically a large, diversified enterprise run by a professional farm manager and overseen by a board of directors. These farms may consist of 80,000 or more acres (irrigated cotton and alfalfa, and livestock in the Southwest, and livestock, wheat, and barley in the Northern Plains), as well as processing plants and other facilities (*Arizona Land and People*; Racine; Baquet).

At the same time, many small, limited-resource farmers may have operations on the reservation and benefit to varying degrees because of the presence of the tribal farm. In southwest Arizona, for example, many small American Indian farms have 40 to 50 acres in cotton, alfalfa, melons, and other crops. These producers often depend to a large extent on off-farm income earned by a spouse or other family member (Rethwisch). Profits from the tribal farm, in many cases, become operating capital for the tribal governing body, with individual producers benefiting indirectly (Rethwisch; Racine).

The census provides useful information on the volume of sales and the crop-livestock mix on American Indian farms. Although farms operated by American Indians are large in land area, they are small in volume of agricultural sales, with nearly 80 percent having sales of less than \$25,000 in agricultural products (app. table E-3). A smaller share of American Indian farms harvested cropland than did all farms, on average, and they had about 20 percent less cropland acreage per farm than all farms (app. table E-4).

According to the census, only about 30 percent of American Indian farms received most of their farm sales from crops, with 70 percent indicating that their farms were primarily livestock operations (app. table E-5). Sales of cash grains accounted for half or more of the sales on only 9 percent of the American Indian farms, versus about 21 percent on all farms. However, there is variation in farm type among areas. In the Raleigh region, 70 percent received most of their farm sales from crops, primarily cash grains and tobacco. In the Sacramento region, fruits and tree nuts were important on many American Indian farms.

Hay, corn, wheat, soybeans, fruits, nuts, and berries were commonly harvested on those American Indian farms with crops (app. fig. E-2, app. table E-6). In the Raleigh

region, soybeans, corn, and tobacco were important on American Indian farms, while in the Sacramento region, about 20 percent of the American Indian operators harvested or had bearing acres in fruits, nuts, and berries. In the Billings region, 56 percent of American Indian farms harvested hay, about the same proportion as all farms. American Indians in the Billings region, however, were less likely to harvest grains or soybeans.

In general, a smaller share of American Indian farms harvested a contract payment crop (app. table E-7). American Indian operators in the Raleigh region were an exception, however, because they were more likely than all farms to harvest corn, a contract payment crop.

According to the census, American Indian operators were less likely than all farmers to receive a Government payment (excluding Conservation Reserve or Wetland Reserve payments), or a CCC loan. The difference between American Indian operators and all farm operators was most marked in the Billings region, perhaps due to the large proportion of American Indian land devoted to livestock production in that area.

At least two pieces of evidence exist on the extent to which American Indians have heard of, or used, Federal crop insurance. One indicator, provided through a joint National Agricultural Statistics Service /Intertribal Agriculture Council survey, suggests that 75 percent of a sample of Montana's American Indian farm operators had heard of crop insurance, compared with 65 percent of all producers (U.S. Department of Agriculture, National Agricultural Statistics Service and the Montana Agricultural Statistics Service). The large proportion of American Indian operators having heard about USDA programs may be due to the presence of USDA offices on many reservations in the Northern Plains in recent years. Findings obtained during workshops conducted by the Federation of Southern Cooperatives, reported later in this report, provide further information.

While continued outreach is important, new program options may also be useful in providing greater risk protection to American Indian farm operators. For example, livestock sales are a more important source of income than crop sales on many American Indian farms. Thus, insurance for hay and forages and for pasture land may assist in farm-level risk reduction. Interest has been expressed recently in pasture and grazing land insurance by American Indians in the Northern Plains (Baquet).

In addition, a whole-farm type of revenue insurance might be of interest to American Indian producers. This

concept, discussed in greater detail in the following section, could be based on the revenue associated with a commodity basket (including livestock) that is important to American Indian agriculture in an area. The revenue guarantee could take the form of an index based on the expected revenue of the commodity basket in a given area (for example, a county) for a period of time. Indemnities would be based on the level of the index in a pre-selected month or series of weeks. Producers need not produce all the commodities in the basket to be eligible for the program, although the greater the correlation between farm-level revenue and the movement in the index, the greater the farm-level risk protection.

Farms Operated by Asians/Pacific Islanders

According to the census of agriculture, Asians/Pacific Islanders operated about 8,000 U.S. farms in 1992 (app. table F-1). Nearly all of these farms were in California and Hawaii. Farms operated by Asians/Pacific Islanders accounted for 4 percent of all farms in California and 58 percent of all farms in Hawaii. These operators averaged less acreage per farm than did all farms. They accounted for only 1 percent of the land in farms in California and 12 percent in Hawaii. As discussed in greater detail below, a relatively high proportion of Asian/Pacific Islander operators have farmed for less than 5 years (app. table F-2).

Although Asian/Pacific Islander operators had less acreage than all farms, a relatively large percentage of their farms reported very substantial sales. About 11 percent of the farms operated by Asians/Pacific Islanders had total sales above \$500,000, compared with 2 percent of all farms (app. fig. F-1, app. table F-3). Only 46 percent of the Asian/Pacific Islander farms had less than \$25,000 in sales, compared with 63 percent of all farms. Significant sales frequently occur because many Asian/Pacific Islander farms produce fruit, vegetable, nut, and cut flower crops, for which the value of production per acre is quite high (Stumbos, 1993a; Lauderdale).

Evidence from extension specialists provides additional information on large Asian/Pacific Islander farms. In California, Japanese producers tend to have some of the largest farms among the Asians/Pacific Islanders, in part because they have farmed over a long period of time (Jolly, 1996). Japanese growers, for example, dominate cut flower production in Monterey County, accounting for a very large portion of the county's nursery output (Pabrua). The largest vegetable producer in Monterey County is Japanese as was, until recently, a large strawberry grower for Driscoll farms, a major California oper-

ation. In many other California counties, large Asian farms also produce a wide variety of fruit and vegetable crops, as well as row crops (Chan; Molinar).

Small-scale Asian farm operators in California are also likely to produce specialty crops. Many of these producers emigrated to the United States from Southeast Asia in the 1970's and 1980's (Molinar; Jolly, 1996; Miller). These small-scale Asian growers often farm 2- to 10-acre tracts, and they generally raise high cash-value crops (Miller; Pabrua; Molinar). Many lease the land that they operate. Marketing outlets for small-scale Asian farmers include sales through roadside stands and farmers' markets (quite common in some areas) and sales through local packers and to wholesale markets.

An example helps further illustrate Asian small farming in California. Many of Sacramento County's Asian growers emigrated to the United States in the 1970's from Southeast Asia, and often produce Asian specialty crops (such as lemongrass and bok choy) that are sold in farmers' markets and through other outlets. These producers often farm tracts of 2 to 5 acres, with 20 acres constituting a large operation (Orr). Many of these producers lease their land until they become established, with farming often being a major source of family income (Miller). About 150 Asian producers are certified marketers in Sacramento County, with certification being a State requirement for producers to market directly to consumers (Miller).

Similarities exist in an analysis of small-scale Asian farming in Fresno County, which has an estimated 800 Asian producers farming about 3,000 acres (Stumbos, 1993b). Many of Fresno County's small-scale Asian farmers emigrated to California in the late 1970's and throughout the 1980's, and a significant percentage are of Hmong (about 500 producers) and Laotian origin. Many produce Asian crops, such as bitter melon, mokuia, luffa, gailon, napa, and long beans (Stumbos, 1996). More commonly known crops, such as cherry tomatoes and strawberries, are also produced. The average small-farm size is about 5 acres, ranging from about 1 to 200 acres (Molinar). Sales are usually through packers (such as Cherta Farms), although sales are also made through terminal and farmers' markets.

In Hawaii, Asian/Pacific Islander small farmers are generally native Hawaiians or Southeast Asian immigrants who arrived in the 1970's. These small operators often produce exotic fruits and vegetables, and those who are limited in resources are likely to farm 5 acres or less (Takimodo). These producers market through farmers'

markets and roadside stands, or to small wholesalers (Valenzuela). Many depend on the off-farm income of a spouse or other family member, or other off-farm income. Large-scale Asian/Pacific Islander operators in Hawaii may ship their produce to California and Canada.

Production of specialty crops is reflected in the census. Nearly 90 percent of the Asian/Pacific Islander operators in the 1992 Census of Agriculture indicated that they harvested crops, with crops accounting for a major portion of sales on 84 percent of their farms (app. tables F-4 and F-5). In the Sacramento region, 90 percent of the farms operated by Asians/Pacific Islanders received half or more of their farm sales from crops. The census also indicates the importance of fruit, tree nut, vegetable, and horticultural production to these producers (app. fig. F-2, app. table F-6).

Compared with all farms, those farms operated by Asians/Pacific Islanders were less likely to harvest a contract payment crop and less likely to have received a direct government payment in 1992 (app. table F-7). Only 11 percent of the Asian/Pacific Islander operators harvested a contract payment crop (compared with 38 percent of all farms), and only 7 percent received a government payment (compared with 27 percent of all farms).

Thus, not only does the use of USDA farm programs by small-scale Asian farmers appear to be quite limited, but many of the crops they produce are not covered by crop insurance programs (including strawberries, exotic vegetables, and many other specialty crops). In some cases, particularly among the most recent immigrants, formidable language and cultural barriers exist, and Southeast Asian refugee farmers may at times be reluctant to trust government assistance (Stumbos, 1996).

To help overcome such barriers, small farm advisors have attempted to establish the trust of these growers through workshops and “master farmer” programs that include lecture series on production practices and marketing strategies and tours to successful operations. Farm advisors view working through groups of individuals in the Asian farming community as an important predecessor in developing the trust necessary to provide effective one-on-one assistance (Jolly, 1996).

The development of new policies that provide insurance for fruits and vegetables otherwise not insurable would be welcomed by many producers, both small and large (Molinar). However, RMA confronts many challenges in working with small-scale Asian/Pacific Islander farmers.

Many small farmers are not likely to keep detailed yield records, and farm sizes are often extremely small. Further, RMA may not find that U.S. production of certain exotic crops occurs on a scale wide enough to warrant policy development. Small-scale growers with a wide variety of crops might find that the availability of policies for only a few crops would not provide adequate protection in the aggregate.

Because of these concerns, some form of group revenue insurance may be an option in offering risk protection. Such a program could support a basket of commodities identified as common among many producers in an area. A revenue guarantee index could be established through interaction with small farm advisors regarding average prices and yields for the selected commodities. Indemnity payments would be made when the average revenue for the basket, again calculated as an index, fell below a pre-specified level, with price data determined from local market conditions and yields based on estimates determined by a farm advisor working cooperatively on the program. Such a program would provide risk protection only when losses occurred across a pre-defined area, and not on an individual basis.

Farms Operated by Operators of Spanish Origin

According to the 1992 Census of Agriculture, about 21,000 U.S. farms had operators of Spanish origin (shortened here to Hispanic operators).¹⁵ Although they are only about 1 percent of all U.S. farm operators, Hispanic operators make up considerable shares of the farm operator populations in several regions (app. table G-1). In the Oklahoma City and Sacramento regions, which contain about two-thirds of farms operated by those of Spanish origin (app. fig. G-1), they account for about 4 percent of all farms. Hispanic operators also account for 3 percent of the farm operators in Florida (Valdosta RSO) and in Colorado (Topeka RSO).

Hispanic farm operators are, on average, about the same age as the general population of all farm operators. They, however, have operated their farms fewer years than all farm operators, 14 years on average for Hispanic operators versus 20 years for all operators (app. table G-2).

In the Sacramento region, 41 percent of the Hispanic operators, versus 33 percent of all operators, have operated their farms less than 5 years. According to two

¹⁵ The census of agriculture made no imputation for those not responding to the question on Spanish origin. Operators of Spanish origin are found in all racial groups in the census.

California farm advisors, many Hispanic operators are former farmworkers who have recently begun to operate farms by renting land (Jimenez; Smith). Another 41 percent of the Hispanic operators in the Sacramento region have operated their farms 10 years or more. This distribution of experience reflects, according to a local researcher, the two waves of Mexican Americans becoming farm operators in California: the first wave of workers who came to California under the bracero program and began operating their own farms in the 1970's, and the second wave who are more recent immigrants (Mountjoy, 1996).¹⁶

In the Oklahoma City region, the distribution of farm experience among Hispanic operators is similar to that of all farm operators: about one-third have operated their farms less than 5 years and about half have operated their farms 10 years or more. In this region, Hispanic farm operators have, in many cases, farmed in their local area for generations (Saenz; Eastman).

Farms operated by people of Spanish origin vary in size across RSO areas (app. table G-3). At the U.S. level, nearly 75 percent of Hispanic operators are small, with total sales of less than \$25,000. In the Sacramento and Valdosta regions, however, the proportion of Hispanic farms with sales of \$500,000 or more is larger than the proportion of all farms. As indicated below, this is in part because a high proportion of Hispanic operators in these areas produce high-value crops, such as fruits, vegetables, nuts, and horticultural crops.

Farms with operators of Spanish origin were somewhat less likely than all farms to harvest cropland (app. table G-4). Sixty-five percent of Hispanic-operated farms, versus 78 percent of all farms, harvested cropland. Those farms with Hispanic operators that did harvest crops generally harvested less acreage than the all-farm average.

Although Hispanic-operated farms were about as likely as all farms to receive more than half of their income from crop sales, they were more likely than all farms to obtain most of their income from fruits and tree nuts (app. table G-5). In the Sacramento region, nearly 50 percent of the farms operated by Hispanics, versus 38 percent of all farms, received more than half of the value of their sales from fruits and tree nuts.

Cash grains and soybeans were generally less important on farms operated by people of Spanish origin than they

¹⁶ A bracero is a Mexican farmworker brought into the United States temporarily for migrant work in harvesting crops.

were on all U.S. farms. Only 7 percent of farms with Hispanic operators harvested corn, for example, versus 26 percent of all U.S. farms (app. table G-6). Even though farms with Hispanic operators tend to be located in regions where relatively few farms harvest cash grains or soybeans (an exception is wheat in the Oklahoma City region), they are also less likely than all farms to harvest cash grains or soybeans in these areas.

Specialty crops are more common on farms with Hispanic operators than on all farms. Fruits, nuts, and berries were harvested on nearly 20 percent of Hispanic-operated farms nationwide (app. fig. G-2) and slightly more than 50 percent of the Hispanic farms in the Sacramento region. According to a local farm advisor, Hispanic operators in the Central Valley of California grow a wide variety of tree crops, including citrus, olives, almonds, and walnuts (Jimenez). In the central coast region of California, it is estimated that several hundred Hispanic operators are growing strawberries and other berries (Gordon).

Vegetables are also frequently grown on Hispanic-operated farms. In California, vegetables commonly grown by Hispanic operators include squash, eggplant, tomatoes, chilies, and cherry tomatoes (Jimenez); in Texas, carrots, tomatoes, and dry beans (Saenz); and in New Mexico, chilies and onions (Eastman).¹⁷

Hispanic-operated farms were less likely than all farms to harvest a contract payment crop or to receive a direct government payment, reflecting the small proportion producing cash grains. Cotton in Texas and New Mexico is the most common contract payment crop produced on Hispanic-operated farms. According to the census of agriculture, only 16 percent of farms with Hispanic operators, versus 38 percent of all farms, harvested a contract payment crop (app. table G-7).

The prevalence of specialty crops (for which crop insurance in many cases is unavailable) on Hispanic-operated farms, particularly in California, points to extending crop insurance coverage to new crops as one way of meeting the risk management needs of Hispanic farm operators. The severe financial limitations of newer specialty crop producers may make it difficult for them to purchase crop insurance, however. Without education, crop insurance

¹⁷ Farms with Hispanic operators accounted for 24 percent of the farms in New Mexico, though only 7 percent of the land in farms. Many of the non-Hispanic farms in New Mexico are large ranches. Many farms with Hispanic operators in New Mexico produce irrigated pasture land and alfalfa.

may be viewed as an added (and unnecessary) cash expense (Gordon).

Still, there is much that can be done through outreach with existing risk management tools, such as the Non-insured Assistance Program (NAP). Although operators with non-insurable crops are being encouraged to register their acreage in the NAP, many may not know about or understand the usefulness of the program. A study of growers in the Watsonville, California, area found that “only 10 percent of the Mexican farmers reported attending any Extension event compared with 75 and 45 percent of Anglo and Japanese growers, respectively (Mountjoy, 1995).” The study states that “the Mexican community has learned to rely on its own members for farming innovation,” and suggests that spreading information through community leaders is an effective way of reaching many Hispanic operators.

Participants in the Federation of Southern Cooperatives Workshops

Previous sections of this report are based on information from the FCRS, the 1992 Census of Agriculture, and farm advisors. This section focuses on crop insurance needs as expressed by a group of limited-resource and minority farmers who responded to a questionnaire that was distributed to participants in crop insurance workshops conducted by the Federation of Southern Cooperatives (the Federation).

As part of the educational mandate of the Federal Crop Insurance Reform Act of 1994, RMA worked with the federation, an organization working at the grassroots level in rural communities in the South, to conduct crop insurance workshops for disadvantaged farmers between January and June of 1995. At each workshop, self-administered questionnaires were distributed to producers for their completion. The questionnaire asked demographic, socioeconomic, and financial questions, and inquired as to the farmer’s interest in alternative crop insurance products and approaches.

Background on the Workshops

In total, the federation and its affiliates conducted 67 workshops in various States in the South, Southeast, and Great Plains over a 6-month period in early 1995 (table 3). The workshops attracted 1,733 producers, with the target audiences including African American, Native American, Latino American, and small-scale white family farmers. Many of the producers were economically dis-

advantaged and had been traditionally unsuccessful at accessing a broad range of assistance through USDA programs.

Producers were informed of the workshops through a variety of means, including telephone calls, fliers, radio and television announcements, contacts with the Extension Service, and farm visits. The project was also incorporated in the Federation’s ongoing Sustainable Agriculture Program. The workshops were supplemented with an extensive media campaign, including public service announcements on radio and television, newspaper articles, and articles in a number of non-governmental newsletters.

About one-third (594) of the workshop participants completed the two-page questionnaire addressing producers’ crop insurance needs (appendix H). The vast majority of the respondents were African Americans (about 75 percent), followed by European Americans (11 percent), Native Americans (8 percent), and Latino Americans (6 percent).

Because the farmers who attended the workshops and answered the questionnaire were self-selected based on their exposure to, and interest in, the workshops and the information gathered, they do not reflect a statistically representative sample of a known underlying population. They do, however, represent themselves, a large group of, for the most part, limited-resource farmers with an interest in knowing more about crop insurance.

Table 3--Federation of Southern Cooperatives: List of workshops and participants, 1995

State	Workshops	Participants
Alabama	8	120
Arkansas	2	28
Florida	2	50
Georgia	10	275
Kentucky	4	145
Mississippi	3	40
Missouri	4	107
New Mexico	2	40
North Carolina	4	100
South Carolina	10	360
Texas	8	260
Virginia	4	48
Intertribal Council States	6	160
Total	67	1,733

Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on 1995 data from the Federation of Southern Cooperatives.

Characteristics of Respondents

Respondents were from geographically diverse areas, with the majority of the 446 African Americans residing in the Southeast and Texas. The 68 European Americans were from Missouri and the Southeast, the 48 Native Americans were from the Northern Plains, Texas, and the Southeast, and the 32 Latino Americans were mainly from Texas and, to a lesser extent, New Mexico.

Ninety percent of the respondents were male, with most having farmed for over 10 years. Most had a high school diploma, while the percentage of those indicating a 4-year college degree varied considerably by ethnicity (see box, “Characteristics of Federation of Southern Cooperatives Respondents”). Over 70 percent of the respondents were the major wage-earner in the family. More than three-quarters of the farmers in each group reported owning land. Less than 25 percent of the farmers leased land that they owned, while farmers in all ethnic groups leased land from someone else.

The percentage of farmers reporting that they earned \$10,000 or more annually in on-farm income varied widely by ethnicity, as did the distribution of enterprises between crops and livestock. African American and European American respondents reported that their on-farm income was fairly evenly distributed between crop and livestock production, while Native Americans were more likely to be engaged in livestock production. The Latino Americans were almost exclusively dependent on crops.

A substantial percentage of the African American, European American, and Native American farmers produced corn and soybeans (table 4). African American farmers were more likely to grow vegetables (including okra, peas, sweetpotatoes, and turnips) than those in other ethnic groups. Over one-third of the Native Americans reported producing hay, and over one-third of the Latino Americans reported producing cotton, onions, and peppers.

Use of Farm Programs

Respondents indicated that they had limited experience with USDA programs. For example, few respondents had received a Farmers Home Administration (FmHA) loan in the past 5 years. Eighteen percent of the African American respondents reported receiving an FmHA loan (now FSA/Farm Credit Programs), as did 11 percent of the European Americans and 14 percent of the Native Americans. None of the Latino American farmers reported receiving an FmHA loan within the past 5 years.

Characteristics of Federation of Southern Cooperatives Respondents

Gender and age:

- About 90 percent of the respondents were male, except for the Latino Americans, where 100 percent were male.
- About half of the respondents were between 31 and 60 years of age, and half were over 60 years. Few were less than 31 years old.

Education:

- Thirty-three percent of the European Americans had a 4-year college degree, compared with 17 percent of the African Americans, 9 percent of the Native Americans, and none of the Latino Americans.
- Most African Americans and Native Americans had a high school diploma or some college course work, while 93 percent of the Latino Americans had only a high school diploma.

Major wage earner:

- Most respondents indicated that they were the major wage earner in their family: 71 percent of the African Americans, 74 percent of the European Americans, 78 percent of the Native Americans, and 100 percent of the Latino Americans.

On-farm income:

- Forty-one percent of the African Americans, 46 percent of the Native Americans, 32 percent of the Latino Americans, and 61 percent of the European Americans earned on-farm incomes of \$10,000 or more annually.
- Most Latino Americans (65 percent) indicated on-farm earnings of \$5,000-\$10,000 annually.

Off-farm income:

- Forty-six percent of the African Americans, 54 percent of the European Americans, and 70 percent of the Native Americans reported receiving at least \$10,000 in off-farm income annually.
- Fifty percent of the Latino Americans received less than \$2,500 annually in off-farm income.

The majority of farmers also indicated that they had not received *ad hoc* disaster assistance in the past, although a higher percentage of farmers indicated receiving assis-

tance in this category than in any other. Among the African American and European American respondents, about 40 percent in each category indicated that they had received assistance since 1988. Thirty percent of the Native Americans reported receiving *ad hoc* disaster assistance, as did only 3 percent of the Latino Americans.

With the exception of Latino Americans, about one-third of the farmers reported purchasing crop insurance in the past 5 years. None of the Latino Americans responding to the questionnaire had purchased crop insurance during that time period. By group, crop insurance had been purchased by 36 percent of the African Americans, 32 percent of the European Americans, and 33 percent of the Native Americans.

Respondents gave various reasons for not purchasing crop insurance. The majority of non-purchasers indicated that they did not buy crop insurance because they did not have enough information. Others indicated that they were not aware that crop insurance would be a useful risk management tool, or stated that they could not afford the premium payment for coverage.

Table 4--Federation of Southern Cooperatives respondents: Crops produced, by race or ethnicity of farmer, 1995

Crop	African Americans	European Americans	Native Americans	Latino Americans
Barley	6	4	19	0
Beans	4	3	0	0
Butterbeans	5	2	0	0
Cabbage	3	0	0	0
Cantaloupe	3	5	0	0
Collards	5	0	0	0
Corn	47	60	33	13
Cotton	11	2	0	38
Greens	3	0	0	0
Hay	1	2	38	6
Okra	5	4	0	0
Onions	0	0	0	34
Oats	6	0	10	0
Peanuts	22	3	2	0
Peas	9	0	0	0
Peppers	3	3	2	41
Sorghum	2	3	2	22
Soybeans	24	28	25	0
Sweet potatoes	4	0	0	0
Squash	6	6	0	0
Tobacco	4	3	2	0
Tomatoes	2	0	2	0
Turnips	3	0	0	0
Watermelon	11	5	0	6
Wheat	11	22	19	6

Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on 1995 data from the Federation of Southern Cooperatives.

Crop Insurance Needs of Respondents

Of the 268 respondents indicating the crop insurance policy changes that would be most useful to them, 26 percent stated that they would like to see catastrophic (CAT) coverage available at a higher level than the 50-percent yield/60-percent price coverage. Farmers must pay a \$50 processing fee for CAT coverage unless they are classified as limited-resource farmers, in which case the \$50 fee is waived. Respondents who noted this desired change in the crop insurance program would like to see greater protection offered at minimal (or no) charge. Of the policy options provided on the questionnaire, this item was indicated by the highest proportion of respondents (table 5).

Relatively few of the respondents stated that they would like to see modifications at the buy-up coverage levels. Eight percent of the respondents indicated that they would like to see buy-up coverage at higher than the 75-percent level, while 6 percent indicated that they would like to see a higher premium subsidy on the buy-up coverage levels. Compared with the responses to CAT coverage changes, the respondents appear more likely to prefer higher coverage for a minimal (or no) fee, rather than a higher subsidy at the buy-up coverage levels.

Many respondents indicated that they would like to see coverage for crops for which insurance is unavailable, as well as coverage for livestock. Several respondents indicated that they would like to see protection from higher feed costs, which indicates that they may be interested in cost of production (or revenue insurance) coverage, and/or coverage for pasture, hay, and forages.

Table 5--Federation of Southern Cooperatives respondents: Desired crop insurance changes, 1995

Policy option	Respondents indicating
	Percent of respondents
Catastrophic coverage at higher than 50 percent	26
Insurance for crops not currently covered (In particular, fruits and vegetables)	16
Personal assistance in understanding sign-up procedures and program changes	16
Insurance for livestock	15
Regular group information sessions and update workshops	9
Buy-up coverage at higher than 75 percent	8
Higher premium subsidy on buy-up coverage	6
Protection from higher feed costs	3

Source: Compiled by U.S. Department of Agriculture, Economic Research Service based on 1995 data from the Federation of Southern Cooperatives.

Respondents across all ethnic groups requested that RMA cover additional crops. The African American respondents were most likely to indicate that they would like to see crop insurance for various fruits and vegetables. Native Americans were most likely to indicate their desire for insurance for hay and timber, while Latino Americans indicated that they would like to see insurance for hay, pecans, and watermelon.

Continued outreach and education efforts were noted as a preferred policy change by numerous respondents, particularly at the one-on-one level. Nine percent indicated that they would like to see regular group information sessions and update workshops, while 16 percent indicated their desire for personal assistance in understanding sign-up procedures and program changes. The higher percentage indicating a desire for one-on-one assistance is similar to findings of certain USDA agencies as to the most beneficial outreach approaches. For example, USDA's Natural Resources Conservation Service, as noted earlier, has found one-on-one assistance to be most effective in encouraging producers to adopt new practices.

Approaches to Aiding Limited-Resource and Socially Disadvantaged Farmers

RMA's regional service offices (RSO) have developed marketing plans that are designed to provide outreach to limited-resource and socially disadvantaged producers. These plans contain many useful tools for addressing limited-resource farmers' needs, including increasing the number of minority crop insurance agents, establishing working relationships with major minority farm organizations in limited-resource areas, providing news releases to minority newspapers and reporters, and talking to extension directors at 1890 land-grant universities and extension agents in limited-resource farming areas about crop insurance. These plans were developed in late 1993.

Rather than reiterating and discussing the ideas within the RSO plans, the following two sections offer a new set of ideas for RMA consideration. The following discussion draws on the analysis in the prior sections of this report, which provide extension information on the characteristics of limited-resource and minority farmers and their risk management and crop insurance needs. These options were developed with the intention of increasing the awareness and participation of limited-resource and socially disadvantaged farmers in the crop insurance pro-

gram, and modifying program provisions to better meet their risk management needs.

New Products and Modifications of Products

Various new products, as well as modifications of RMA products, may be developed to assist limited-resource and socially disadvantaged farmers in meeting their risk management needs. These products would provide greater risk protection within the crop insurance framework, encompass a larger number of producers, or provide new, more inclusive risk protection. All options would add to RMA program costs, though some of these options are more expensive than others. Options such as increasing the coverage level of catastrophic insurance, for example, would likely be more expensive than various marketing approaches that could be taken.

Catastrophic Coverage at a Higher Level than 50/60 for Limited-Resource Farmers—Under the Federal Crop Insurance Reform Act of 1994, the \$50 fee is waived for limited-resource farmers (see definition below) who purchase CAT level insurance (appendix I). At the “buy-up” levels of coverage, however, limited-resource farmers must pay both a processing fee (at either \$50 or \$10, depending on the level of coverage) and a premium. Greater risk protection could be offered either through waiving the processing fee for limited-resource farmers at all coverage levels, or alternatively, by raising the CAT level of coverage for such producers.

Twenty-six percent of the respondents to the federation questionnaire indicated that they would like to see catastrophic crop insurance coverage made available at higher than the 50/60 level. Of the policy options listed on the questionnaire, this item was chosen by the highest proportion of respondents. If this change were adopted, limited-resource producers (for whom the fee is waived at the CAT level) would have added risk protection at no charge.

This type of program modification would require a legislative change and would not be possible through the regulatory process. The Reform Act specifies that the waiver of fees is available only to limited-resource farmers, and only for the catastrophic level of coverage.

Modification of the Limited-Resource Farmer Definition—The Federal Crop Insurance Reform Act regulation defines a limited-resource farmer as:

... a producer or operator of a small or family farm, including a new producer or operator, with an annual gross income of less than \$20,000

derived from all sources ... for each of the prior two years Notwithstanding the preceding sentence, a producer on a farm of less than 25 acres aggregated for all crops, where the producer derives a majority of the producer's gross income from the farm, but the producer's gross income from farming operations does not exceed \$20,000, will be considered a limited resource farmer.

According to RMA data, about 24,500 policies qualified as limited-resource farmer policies under this definition in 1995 and, as a result, were waived from payment of processing fees at the CAT level.

Expanding the definition of limited-resource farmers would increase the number of farmers eligible for waivers and the demand for CAT coverage, resulting in a larger pool receiving yield risk protection. Modifications to the regulatory definition could include raising the \$20,000 gross income threshold, reducing the time period for incomes below the threshold from 2 years to 1 year; and increasing the 25-acre limit.

Other modifications might be considered. As discussed in earlier sections, about 350,000 farms, using the definitions established in this report, are considered small farms. Such a definition would greatly increase the number of producers eligible for the waiver, and thus, participation at the CAT level. Further, the concept of limited-resource farmer, as defined by financial criteria, may also be reconsidered. For example, certain USDA agencies do not use the "limited-resource farmer" concept, but focus on "socially disadvantaged producers," which are defined by gender, race, and ethnic group. Such a modification would, as with the "small farmer" category, significantly expand the number of qualifying producers.

The Federal Crop Insurance Reform Act of 1994 provides RMA with considerable latitude in defining the scope and magnitude of the term "limited resource farmer." The Act states with regard to the catastrophic level of insurance, "The Corporation shall waive the administrative fee for limited resource farmers, as defined by the Corporation."

Insurance for Fruits, Vegetables, and Other Commodities—Many respondents to the Federation questionnaire indicated that they would like crop insurance to be made available for a wide variety of fruit, vegetable, nut, and other crops (such as pasture) for which insurance is currently unavailable. Respondents also indicated that they would like to see insurance made available for livestock,

a commodity that is often quite significant on limited-resource farms.

Limited-resource farmers' demand for insurance could be accommodated in RMA's process of developing pilot programs for crops that are uninsured. Evidence presented in this report indicates, for instance, that a relatively high proportion of small-scale Asian farmers in California produce a wide variety of Asian vegetables and other specialty crops. Hay is a common crop on Native American farms. Many Hispanic producers grow fruits and vegetables that are not currently insurable.

In developing new pilot programs, RMA might consider working with the Federation, selected 1890 land-grant universities, and other groups that work closely with limited-resource farmers in organizing focus groups to assess the demand for insurance for new pilot-program crops. Such forums would not only provide greater insights into limited-resource producers' crop insurance needs, but would also provide education to producers regarding the crop insurance program and risk management.

Farm-Level Revenue Insurance—According to both the census and the Farm Costs and Returns Survey, a large share of limited-resource farmers receive a substantial portion of their farm income from livestock. In addition, several respondents to the Federation survey indicated that they would like to see protection from higher feed costs as an insurance option, which suggests that they may be interested in cost-of-production (or revenue) insurance.

A revenue insurance program that accounted for farm revenue from all sources, including both crops and livestock, may provide much better risk protection to limited-resource farmers than crop insurance alone. Given the importance of livestock production, whole-farm revenue insurance would provide both price and output protection for a greater variety of commodities than under the current set of commodity and crop insurance programs.

GRP- or Revenue-type Insurance for a Basket of Commodities—Group Risk Plan (GRP) insurance is offered for major field crops, and provides producers with risk protection from county-level yield variations. GRP insurance pays producers an indemnity when the county yield for the crop falls below a pre-set level and is most effective for producers whose individual yields are highly correlated with county-level yields. GRP often has a lower premium rate than individual-yield multi-peril crop insurance.

GRP could be adapted to cover a basket of commodities in a given county, rather than just individual crops. Further, the program could be structured to provide revenue protection, rather than simply yield protection. The commodity basket could include not only selected crops that are a focus of limited-resource farmer enterprises in a given area, but also livestock. The insured producers need not be producers of all commodities in the basket. In essence, the guarantee would be based on an index composed of yields (or revenues) for the identified commodities. Indemnity payments would be made to producers when the average weighted county-level yield (if only crops were included in the basket), or the average county-level revenue (if both crops and livestock were included in the basket), for the commodity basket in a given year fell below a specified historical index level.

This approach would not require that producers have records on historical yields and prices, nor would it require loss adjustment or the filling out of multiple applications on the part of the producer. Due to the relatively low cost of GRP and the importance of both crops and livestock to limited-resource farmers, such insurance may provide a viable direction for risk protection.

New Marketing Methods

The marketing methods suggested in the following paragraphs involve new outreach and extension efforts to limited-resource farmers for consideration by RMA. These ideas emphasize the use of one-on-one assistance and joint efforts with other USDA agencies. Our suggestions also include providing crop insurance information in a comprehensive risk management framework.

One-on-One Assistance—Census data indicate that limited-resource and socially disadvantaged farmers tend to be over age 65, and a relatively large proportion have farmed for less than 5 years. In addition, a substantial proportion of limited-resource farmers have less education than all farmers as a whole.

Because of these characteristics, one-on-one assistance regarding the benefits of crop insurance and its link to the farmer's risk management efforts may be the most productive and beneficial method of outreach. In a one-on-one situation, individuals would be freer to ask questions and obtain a greater understanding of how crop insurance would benefit their individual farming operation than in a group setting. However, gaining the trust of the group as a whole first is an important precursor to such assistance.

USDA's Natural Resources Conservation Service (NRCS) has found one-on-one assistance to be one of the most successful methods of outreach to introduce communities to conservation practices. When this method is used, a community leader in a socially disadvantaged area is chosen to introduce a new conservation practice (or practices), with NRCS working closely with that individual. Other farmers in the community can see the practice, and the leader who has adopted the new practice can discuss its benefits with other producers and encourage its adoption.

RMA might consider similar efforts, such as establishing one-on-one relationships with groups of progressive farmers in selected limited-resource areas. The goal of these relationships would be to provide farm-specific information and assistance regarding risk management, with a focus on crop insurance and revenue risk management. Producers could be identified in contacts with extension agents, 1890 universities, and local farm organizations.

The one-on-one assistance could include information on the benefits of crop insurance within the farm's operating environment, methods of price risk management, and other topics that are related to each farmer's individual risk-management situation. As the producers become knowledgeable about risk management, "commodity clubs" could be formed, where producers exchange information on the techniques they have found most useful.

Joint Outreach and Extension in Cooperation with Other USDA Agencies—USDA agencies, such as FSA/Farm Credit Programs and NRCS, conduct outreach and extension through 1890 universities, minority farm organizations, the Federation of Southern Cooperatives, and other entities, as does RMA. The various USDA agencies providing such outreach may find that joint efforts may, in some situations, be the most efficient form of extension to limited-resource and minority farmers.

Through joint presentations and one-on-one interaction, the linkages among USDA programs and efforts could be emphasized and reinforced. For example, FSA/Farm Credit Programs assist socially disadvantaged farmers through operating loans and farm ownership loans and an outreach and technical assistance program that, in part, helps producers develop sound farm management practices. Crop insurance is an important farm management tool that is critical to producers who, in particular, confront significant yield variability. The use of crop insurance may be a critical mechanism in helping producers

to, in time, be eligible for the receipt of commercial loans.

Other opportunities exist for USDA agency interaction. NRCS, for example, has worked to encourage producers to grow nontraditional crops (including cover and pasture crops) in certain areas as a conservation practice. If insurance is not available for such crops, RMA might consider offering a pilot program providing insurance in the selected area. This type of effort, as in the FSA example above, would contribute to the achievement of multiple USDA goals.

Outreach and Education through High School and College Agriculture Classes—RMA has made significant efforts in identifying and establishing relationships with minority farm organizations, 1890 land-grant universities, and the Federation of Southern Cooperatives. These efforts generally have addressed the situations of limited-resource farmers.

RMA might also consider providing information and presentations to high school and college agriculture classes in limited-resource areas. These presentations could be conducted jointly with other USDA agencies, through a comprehensive effort, or with information specific to Federal crop insurance. At the high school level, general agriculture classes could be targeted, while at the college level, crop insurance would be relevant for classes in farm management and agricultural policy. If the presentation included information on inventory management and price protection, classes on agricultural marketing could also be targeted.

By providing information to high school and college classes, information on crop insurance would be made available to young people at an impressionable time in their lives. Such information would help them become more aware of risk management alternatives for their start in farming. In addition, these young people may also serve as an education source for relatives and others in the community.

NAP Registration Through 1890 Schools and Other Organizations—Evidence provided early in this report indicates that certain minority farmers participated in *ad hoc* disaster assistance programs at a relatively high rate compared with other USDA farm programs. As a result, it is important to educate limited-resource and minority farmers about the Non-insured Assistance Program (NAP) and the status of *ad hoc* disaster assistance. Such educational efforts, which have taken place to a certain extent, would likely best be targeted to limited-resource

farmers through 1890 universities, local minority farm organizations, and organizations such as the Federation of Southern Cooperatives.

An Update on RMA Efforts to Assist Limited Resource and Minority Farmers

The RMA continues to develop new insurance products and enhance its program delivery and educational outreach in order to meet the needs of limited-resource and socially disadvantaged farmers. In 1998, RMA is planning to make new pecan and sweet potato programs available. Further, a significant expansion of the Group Risk Plan for hay and forage production is anticipated. Research continues on insuring cabbage, cucumbers, melons, and other direct market crops. Other options mentioned by participants in crop insurance workshops--increasing the guarantee level of catastrophic crop insurance and offering insurance on livestock production--would require legislative changes and have major budgetary impacts.

Efforts to reach limited-resource and socially disadvantaged farmers need to include the private insurance companies and agents that sell crop insurance to farmers. RMA has proposed changes to its Standard Reinsurance Agreement with insurance companies that would increase incentives for selling crop insurance to small farms. RMA has also proposed that the companies collect and report data on participation in the crop insurance program by socially disadvantaged farmers.

RMA is also working with the Federation of Southern Cooperatives and the Intertribal Agriculture Council to identify minority insurance agents and companies that may be interested in marketing crop insurance. RMA's Valdosta regional service office will provide loss adjustment training for minorities identified by the Federation of Southern Cooperatives.

RMA's educational outreach programs continue to target minority farm operators. For example, RMA distributes information about risk management programs through the North American Precip Syndicate, a media placement service that provides access to rural Hispanic and African-American audiences. Messages have covered crop insurance reform, sales closing dates, and NAP sign-up dates.